

We claim:

- 5 1. A solid support for analytical measurement methods which is essentially composed of an inert solid support material on which hydrophilic measurement zones which may be provided with a surface loading are separated from one another by at least one hydrophobic coating, where the number of measurement points applied per cm² of the support is greater than or equal to 10.
- 10 2. A solid support as claimed in claim 1, wherein the hydrophilic measurement zones are separated from one another by at least one continuous hydrophobic coating.
- 15 3. A solid support as claimed in claim 1, wherein the hydrophilic measurement zones applied to the support are separated from one another by non-continuous hydrophobic zones.
- 20 4. A support as claimed in ^{claim 1} ~~any of claims 1 to 3~~, wherein the support material used is glass, ceramic, quartz, metal, stone, plastic, rubber, silicon or porcelain.
- 25 5. A support as claimed in ^{claim 1} ~~any of claims 1 to 4~~, wherein a transparent support material selected from the group of glass, quartz, silicon or plastic is used.
- 30 6. A process for producing a support as claimed in any of claims 1 to 5, which comprises providing the support with at least one hydrophobic coating, and applying the hydrophilic measurement zones by microlithography, photoetching, microprinting or a micropunch technique.
- 35 7. A process for producing a support as claimed in any of claims 1 to 5, which comprises providing a hydrophilic or hydrophilized support with at least one hydrophobic coating by microlithography, photoetching, microprinting or a micropunch technique so as to produce hydrophilic measurement zones which are separated from one another.
- 40 8. A process for producing a support as claimed in claim 6 or 7, wherein a surface loading is additionally applied in the hydrophilic measurement zones on the support.
- 45 9. An analytical measurement method which comprises liquid analysis samples which may, where appropriate, be covered with a hydrophobic layer being applied and analyzed in the

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hydrophilic measurement zones on a support as claimed in any of claims 1 to 5.

10. An analytical measurement method as claimed in claim 9,
5 wherein the analytical measurement is carried out in an atmosphere which is virtually saturated with water vapor.
11. An analytical measurement method as claimed in claim 9 or 10,
10 wherein the analytical measurement is carried out while cooling the support.
12. The use of a support as claimed in any of claims 1 to 5 in
15 diagnostic methods, in research looking for active substances, in combinatorial chemistry, in crop protection, in toxicology or in environmental protection.

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